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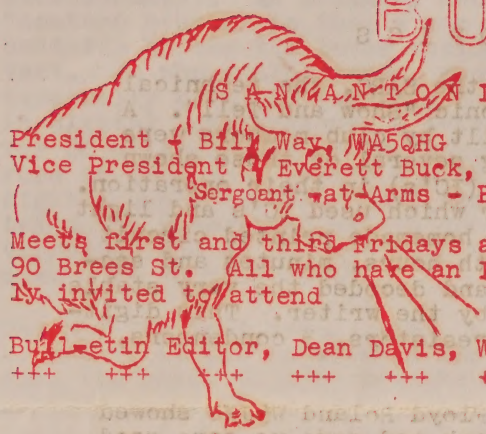
BULL-ETIN



S A N A N T O N I O R A D I O C L U B

President - Bill Way, WA5QHG Secretary - Bill Ross, K5LLK
Vice President - Everett Buck, W5SJP Treasurer - Frank Box, WA5VFM
Sergeant-at-Arms - Brenda and Linda Trappe

Meets first and third Fridays at 7:30 p.m. at the Red Cross building 90 Brees St. All who have an INTEREST in amateur radio are cordially invited to attend

Bull-etin Editor, Dean Davis, W5BGE Typist, Maybelle Davis, XYL

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"By the Way" by WA5QHG

At the next regular meeting, September 15, Ben Van Wye W5ZED will present a program entitled "W5ZED's Phased Array". As many of you know, Van has spent considerable time experimenting with many phases of amateur radio, especially with antennas. This promises to be a very interesting program. See you there!

The SARC year ends Sept. 30 and it is time to take inventory of the club's activities. Thankfully, there were few actual emergencies this year. W5SC participated with the Red Cross in the emergency caused by the floods last spring in New Braunfels, Seguin, and here in San Antonio. Then, for practice, there was SET on Jan. 29 and Field Day on June 24-25.

The Code and Theory Class "graduated" about 10 novices and had about 15 participants in the second phase (studying for general class). Programs at the meetings included" Bob Wheaton W5PKK on TVI; Larry Higgins W5QMU on VHF-FM; Floyd Roland W5JKU on "Roland's Ramblings"; Doug Blakeslee W1KLK on ARRL; and several members presented "Show and Tell" projects. The Christmas party on December 11 was "one of the best" according to 121 members and guests.

The club has a new constitution and bylaws now and had about 50% increase in membership. Next year there should be a corresponding increase in club activities. SO, GET ACTIVE!! PARTICIPATE!!!

CUL, 73, Bill WA5QHG.

-...- -...-

ARRL BULLETIN--FCC DOCKET 18803

Nr. 388 From ARRL Headquarters Ck 249, Newington Conn, Aug. 31, 1972,
TO: ALL RADIO AMATEURS.

FCC Tuesday adopted amendments to part 97 of the rules concerning the licensing and operation of amateur repeater stations, docket 18803.

Beginning July 1, 1973, a separate station license will be required, with distinctive prefix WR. Applicants must be at least Technician Class, and submit data regarding the technical and operational provisions of the proposed station. The new rules permit a licensee to use his own repeater station while he is operating mobile or portable, provide for auxiliary link stations to be used where terrain makes multiple hop-control links necessary, and provides for remote control.

Approximately one half of each amateur VHF band, and 8 MHz of the 420 MHz band was authorized for repeaters usage, and 145 to 148 MHz will be opened to Technicians. New rules also limit effective radiated power, and require the license to maintain supervision and control of both technical and operational performance. The rules also provide for automatic identification of repeater stations fone as well as CW. Because of numerous violations of the rules regarding inter-connections it may be necessary to examine the use of auto patch facilities and possibly restrict the use of such devices in the amateur service. The new rules become effective October 17, 1972. These are highlights. Full detailed information from the extensive document scheduled to appear in the October issue of QST.

TECHNICAL TOPICS

By W5LFM Cal Graf

At the 18 August 72 meeting of the SARC, the technical program consisted of an electronic "Show and Tell". A number of interesting items built by club members were displayed and described. Among several of those shown were projects which use integrated circuits (IC's) in their operation. Clay Laster W5ZPV described a decade counter which used IC's and light emitting diodes (LED's) and his first home homemade printed circuit (PC) board. An electronic digital clock with hours, minutes and seconds six figure display, and which counted and decoded the very stable 60 hertz power line voltage, was described by the writer. This digital clock uses 18 IC's, 1 diode, 1 zener, 3 resistors, 3 condensers, and 42 incandescent lamps for the figures.

At an earlier meeting, SARC past-president Floyd Roland W5JKU showed us some of his fine printed circuit board work and gave us some good words on his experiences with PC and IC construction techniques.

To those who have not yet been bitten by the IC bug, the IC and all its electronic magic can be sluffed off--for a time, that is. The desire to ignore IC's is much like some of the struggles in the past which some of us remember, depending on how old we are--no phone in 40 meters (now there's AM and SSB), only Class A phone operation on 75 meters, don't give up 11 meters (27 mhz, later given to Citizen's Band), and the like.

It seems that all along the transistor was destined to be just a gap filler between the vacuum tube and the IC chip, because within the IC the transister is just one of the useful elements of the IC. An SN7447 (BCD to seven segment decoder/driver) IC made by Texas Instruments, has about 80 transistors, 14 diodes, 57 resistors and no capacitors. This IC costs a little over a dollar and the cost is going down almost a cent per month. Compare that to the price of a discrete (you can pick it up with your hand) transistor which might sell for a dollar. The cheapest IC sells for about 25 cents in lots of 1, and they get cheaper by the decade quantity.

IC manufacturing technology is what has made the whole business possible; everyone knew how to design an IC, but how do you build it, and build it fantastically small and yet inexpensively? Years ago, a ham was most proud to be crystal-controlled in his rig because he could receive a T9X report on his CW signal. Today, one is able to buy a crystal-controlled watch which he wears on his wrist. And the guaranteed time accuracy is on the order of less than 10 seconds per year! Considering that there are a little more than 31 million seconds per year, that's not bad! Imagine the stories to be heard in a few years--"But, Mom, my watch battery ran out of juice, honest!"

The IC's used in quartz wrist watches (Benrus had one for $99) or electronic pocket-sized calculators (available for under $80) have a single IC chip which has over 900 transistors etched in its surfaces.

The most popular type IC is the 14 or 16 pin TTL (transistor, transistor logic) in the plastic dual in-line package. Earlier types used RTL (resistor, transistor logic) which used external, discrete resistors, and the DTL (diode, transistor logic) which used external, discrete diodes. In the TTL packages, the diodes and resistors are all part of the IC chip. The chip is about the size of a piece of Sen Sen (1/8 inch by 1/8 inch. an early version of click, click, two mints in one.)

Of course, with the new technique of IC's comes the new lingo of the digital talker--binary code, goes high (binary 1 a YES condition), goes low (binary 0, a NO condition, AND, OR, NAND (not AND), NOR (not OR), V_{CC} (that's the supply voltage, usually 5 volts DC), and the like. This past week at Sylvania on the west coast I learned of some new ones--ALWAYS (always 1, never goes 0, or its reverse) and NEVER (never goes 1, always a 0, or its reverse). The ALWAYS and NEVER are expressions of a digital malfunction or undesired condition, they are not the opinions of wives, as one might believe.

IC's are fantastically fast in their operation because of short path length, low capacitance, low inductance, etc., so that their usual switching response time is on the order of nanoseconds (thousands of

microseconds). An ordinary mechnaical switch usually suffers from "contact bounce" in that a momentary push button switch makes many contacts before its lever action finally lets go, and there is no contact. In the analog sense, when you turn off your transmitter, it eventually goes off (usually in a tenth second or less). When used in digital applications, a switch which has been turned off may bounce for 20 milliseconds or so, making from 5 to 10 additional contacts before it lets go. That's why "bouncelsss" switches are employed in digital applications. They require a whole separate circuit which takes the mechanical switch contacts and gates them through a transistor/diode hookup so that only the first "contact" can pass and not the next 2 to 10 "contacts".

The Digital Volt Meter (DVM) is already available in great abundance at prices as low as several hundred dollars. It won't be too long before the price will be low enough for one to replace their 17th century round final place meter directly with a meter display that reads and displays voltage or current directly, as 299.9 (volts); try estimating that with the naked eyeball and a 5% meter movement!

Remember--the use of IC's has just started in our life. Think of what it will be like in 20 years! Regards, Cal Graf W5LFM.

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S A R C . C H R I S T M A S P A R T Y S A T . D E C . 9 T H

..-. -.-. -.-.

PUBLIC NOTICE

Federal Communications Commission-1919 M St., N.W.,Washington,DC 20554

87468 August 4,1972 S

AMATEUR LICENSEES ARE WARNED AGAINST IMPROPER USE OF THEIR STATIONS IN HANDLING COMMERCIAL TRAFFIC

The Commission has received recent evidence that a number of anateur licensees are engaged in handling business communications directly and indirectly involved in commercial operations. These communications are conducted on both the High Frequency bands, and in particular, of late, the VHF bands. In the former, manually operated phone-patch equipment usually is utilized. In the latter, repeaters using "auto-patch" equipment have been used on a widespread basis for interconnection with the commercial telephone system. There has been tremendous growth of amateur repeater stations over the past few years. This has enabled amateur VHF communication from automobiles over a large area of the country. An individual in a moving vehicle capable of accessing a repeater equipped for "auto-patch" operation, may easily communicate with practically anyone having a telephone.

Use of interconnection equipment is not prohibited in Part 97 of the Rules. Automatic "auto-patch" equipment is being used increasingly by VHF repeater stations. There is evidence that this type of operation encourages the handling of commercial communications, which are not permissible in the Amateur Service. The Commission is greatly concerned that such operation may seriously jeopardize the evolutionary development of the Amateur Service in accordance with its "charter" contained in Section 97.1 of the Rules. Augmentation of the value of the Amateur Service as a "voluntary non-commercial communication service" must not be brought into question as a result of amateurs' handling commercial traffic.

..-. -.-. -.-.

S I L E N T K E Y

Donald G. Bocko W5ZDU
Joined the ranks of Silent Keys
Sunday, August 13, 1972.
An active member of
The San Antonio Radio Club
And San Antonio Repeater Organization.

LIGHTNING STRIKES . . .

By W5BE

On the morning of July 18, just after W5BE, Les, and XYL Virginia had hurried inside their house as a rain began, a terrific flash and explosive crash occurred, caused by a bolt of lightning striking the 100 foot mast and tower. The sound was as if the house had been hit by a bomb--the noise was fearful and ear shattering. Being a direct hit, naturally no thunder followed the terrifying blast, but it seemed as if the entire place was being ripped to pieces.

Examination revealed that the bolt had travelled down the coax, which was grounded, also junping to the meter loop conduit, and from there also to ground. Several circuit breakers were tripped, causing lights to go out, and it was discovered that some bulbs that had been burning were burned out, also some that had not been burning. One switch was welded closed, later examination disclosed damage not only to the antenna and rotator, but to some tubes in a transceiver, (not turned on), and its power supply (A.C. 500) which had a fuse and holder blown clear out of its case, with nothing but wires left hanging loose. The bakelite housing and glass envelope of fuse were so shattered that nothing but minute particles could be found. The clock on wall above operating desk was blown out and stopped at 11:32 A.M.

Fortunately that things being grounded as well as they were, more serious damage was prevented, and the major part of the discharge was passed to ground thru the tower, unfortunately though, doing some damage to the antenna and rotator.

In the nearly sixteen years that this tower has been standing, it has sustained three strikes, and before that time a huge twin elm, about 55 feet high was struck and split in half. In three instances the power lines absorbed some of the discharge, causing some damage to electrical devices. Strangely in the last previous instance, in addition to some antenna damage, light bulbs and a clock were blown out, that clock having been in another part of the house.

W5BE has learned of a "Home Lightning Protector" manufactured by G.E., understood to sell for $12.00, and has requested information on its ratings and claimed performance, but data is not yet available. As Les had commented to his XYL as they were hurrying from their garden toward the house, that there was probably lightning in that huge black mass, she replied, "Do you know that large oak trees (such as ours) attract lightning?" He replied, "Yes, but this 100 foot tower would attract it before those trees, and it is really the best lightning portector we have around here." What a prophetic statement that proved to be, in a matter of less than five minutes! 73, Les W5BE.

. . . TWISTER HITS

On Wednesday, August 23, there was plenty of lightning and thunder in the S.A. area. At the home of Bill WA5OJC a cloud dipped and seemed to form a funnel. The resulting turbulence caused his 50' Rohn self-supporting tower to twist at the base and fall over on the roof. The tower had a TA33-40 beam and a 4 element 2 & 6 quad on it. The beam and quad, which were completely demolished, tore large holes in the roof.

Bill is now considering some sort of crank-up tower and would appreciate any suggestions on what to get. He commented that if possible all towers should be away from the roof, also even if the tower is self-supporting, some guys would possible have prevented some of the damage to his roof. de W5BGE.

SAN ANTONIO REPEATER ORGANIZATION MEETING

The fourth quarterly meeting of the San Antonio Repeater Organization is tentatively scheduled for Saturday, October 7, 1972, at 1400 hours, probably at Greentree Village Recreation Room. This is subject to availability of the meeting place on that date and will be confirmed by a notice and an agenda. IMPORTANT! ELECTION OF OFFICERS.de WB5DFQ.

CONTEST ADVISORY COMMITTEE

by K5TSR Bill Parry

For those of you who are interested in contesting, there are some changes on the horizon that may or may not affect you. First, the rules concerning club competition in the Sweepstakes, DX Competition, and the VHF Sweepstakes have been under considerable study and the Committee has made recommendation for change. There has been some suggestion that a new SS contest for RTTY should be established. One recommendation that you will see implemented in the 1972 SS will be a change in the power limitation for Class A from 150 watts to 200 watts.

As you may or not be aware, any ARRL club that wishes may enter the club competition in the Sweepstakes, DX Competition, and/or the VHF contest. The rules, found here and there in past league publications, came in for considerable criticism this past year. These rules provided that a member of an ARRL club could participate in the club competition if he lived within 50 miles of the club's mailing address or secretary. A member of the club living outside the 50 mile radius and up to 175 miles could participate if he attended at least 50% of the meetings of that club.

The problems that these rules encountered were many, but there were a few that were outstanding. First and foremost in my mind was the fact that the club that had the most members entered, invariably ended up as the winner. A second problem was the limitation on the mileage distance for a member. It, of course, is always a temptation to squeeze in a high scoring member, just outside the mileage limit. Another temptation is to recruit mew members the day or night before the contest. All of these temptations have been too much for some clubs that are more interested in winning than how they play the game.

The Contest Advisory Committee, in due course, took a poll of 50 of the more contest minded clubs for feedback on the situation, and from the answers and comments from the CAC members, a new set of suggested rules have been proposed to the Awards Committee of the ARRL. The suggestions include elimination of the mileage limitation, and a minimum of four meetings attended rather than the 50% figure used in the past. The present competition will probably be made regional, in other words clubs in the 5th call area will compete with other clubs in the 5th call area only.

Probably the most controversial part of the new suggestions is the new team competition idea. The idea was brought up as a possible solution to the problems of a small club. In the past a club with 10-25 members has no chance of winning the club competition. The suggestion is that a club may enter 20 scores from its membership and call it a team. This team would compete with other 20 score teams across the nation. Since one person can enter two scores (1 fone and 1 CW) this will allow a club of only 10 persons to compete with a club of 200 members. A large club, if it wishes, may enter as many 20 scores teams as it has members.

Some of these rules will probably be accepted, others may not, but my objective has been to try to produce suggestions that will allow everyone an equal chance under the rules. Please remember that if you are interested in contesting, you should make any suggestions that you might have to me so that I will be aware of your sentiment. My address is 4343 Bright Sun, San Antonio, Texas, 655-6285.

CU in SS. Bill K5TSR.

-..- -..-

CODE AND THEORY CLASS

SARC will sponsor a Code and Theory Class at the Jewish Community Center, 103 W. Rampart on Tuesday and Thursday--starting at 7:30 p.m. Thursday, September 21. -..- -..-

S P L A T T E R : Quite a few SAers were in Austin for VHF-FM meeting. Terry W5ETG was heard on 2FM complaining about Austin water--seems when he woke Sunday morning and washed his face, the water (?) caused his eyes to look bloodshot.....My apologies to W5PCX and W5NSQ for inadvertantly leaving off their credit for the touchtone pad schematic in July Bull-etin.....Sept. 15 meeting Election of Officers: Nominating Committee suggested Ivan WA5RNV, Pres.; Bill W5LLK, VP; Mike Fritz Sec.; Frank WA5VFM, Treas.; Trappe Twins, Sgt.@ Arms.VOTE!! de W5BGE.

SPECIAL MEETING

BY K5LLK.

On August 11 the San Antonio Radio Club held a special meeting hosting Doug Blakesley W1KLK, Assistant Technical Editor to QST. Doug, who was invited by our resident West Gulf Director, Roy Albright W5EYB, gave a talk to almost 100 members and guests on behind-the-scenes happenings at ARRL Headquarters, and notably QST.

He, with the aid of great color slides, enlightened and familarized all with the technical laboratory and workshop of ARRL. All who attended now have a much better idea of the accomplishments and the capabilities of our men in Newington. For those who have ever been embarrassed by a messy rats nest at the workbench, it was very gratifying to note that the QST technical staff works amidst similar clutter and confusion. I know I feel much better!

I'm sure many took particular notice that, although it took QST a long time to recognize VHF-FM, the boys in the lab are now deeply involved.

Many present had the good fortune to hear Doug the next day at the Texas VHF-FM Society Summer Meeting in Austin, point out the limitations of most presently known FM discriminators in narrow band rigs. Although he didn't say as much outright, I had the impression that, for the present, wide band FM has a lot of advantages worth utilizing for good FM communications.

A "Show and Tell" program at the 18 Aug. meeting turned out to be both fascinating and interesting. Cal W5LFM presented a computerized clock, Clay W5ZPV showed a solid state counter using light emitting diodes, George W5OI demonstrated a solid state FET dipper (QST July 72), and Roy W5EYB displayed the macromatcher (QST Jan.72) he constructed.

-...- -,,- de Bill K5LLK.

SAN ANTONIO RADIO CLUB MEMBERS SINCE JULY 1, 1972

CENTO	Christy	W5DWX	Rt. 9, Box 203B	78227	623 2619
DRIESSLEIN	Homer	K5LTE	1231 Arroya Vista	78213	344 1213
IVERS	John	WA5IFR	1006 Gardina	78201	736 3898
LONG	John		5034 Village Path	78218	655 0301
MAYES	Warren	WA5JTU	246 Gettysburg	78238	732 6676
MILLER,	Omer	W5RSK	534 Condleglo	78239	653 0631
MITCHELL	Keith	WA5YTT	807 Flame Circle #122	78221	924 0178
PINKERTON	Juana Maria	WA5EZJ	7500 Callaghan Rd.#222	78229	342 2044
SCHWARTZ,Jr.	William	W5CHO	502 Waxwing Circle	78239	653 3090
SHIREY	Rob		2771 Whisper Path	78231	692 1747
WEST	Rolland	K5VRM	7402 Buckboard Ln.	78227	674 3586
WOELFJOHN	Norman		1339 Spanish Oak Dr.	78213	342 2892
WOODARD,	Bruce	W5OSJ	133 Rio Bravo	78216	694 2142

-...- -.-

CORRECTIONS FOR PAGE 1 - JULY ISSUE CLUB ROSTER

BIRDSONG			4331 Sunshadow		655 7778
CLARK					653 3333
DAVIS	Lynn				532 4470
DAVIS	Raymond				736 4731
DE LAY	Peggy	WA5GZO			
ERB		WB5GBW			
FITSHUGH	J. V.	W5VL	501 Shook	78212	732 3467
HARRIS	M. D.	K5PKX			
HENDERSON,	George	W5OI	2641 Nacogdoches Rd	78217	824 5612
HODGDON	Heather		Rt. 13, Bx 172 S	78218	655 3607
LYON	Van	WA5YDN	225 Cromwell	78228	733 0953

CORRECTIONS FOR PAGE 2 - JULY ISSUE CLUB ROSTER

KARPOWICZ		WA5UAM			736 0615
MANGOLD			...- -...	78217	
NAUJOKS	Richard	HL9VF SP/5 187347488 EUSA BAND		APO SF	96301
NAUJOKS	Sharon	WN5GAL	115 Pinecrest #7	78209	828 6917
REED	David	WB5GDL			
RICHIE	S. M.				826 4508
RITTIMANN	Michael (shown as Ritterman)				
ROSS	Bill	K5LLK	418 Dawnridge	78213	344 9149
ULREY	Emma	(shown as Elrey)			
NELSON,	David L	WN5HHO			221 4086

CORRECTIONS FOR PAGE 3 - JULY ISSUE CLUB ROSTER

WILKERSON	Madie		3821 Highcliff Dr.	78218	653 5477
HEAD	David	WA8VAQ	(Shown as David REED)		

AN EDITORIAL

By W5BGE.

K5HZR NOT TO SEEK REELECTION AS SCM

Lee Ulrey K5HZR, who has served as the Section Communication Manager of South Texas for 2 years, has decided not to seek reelection at the end of his present term., which expires 10 Dec. 72.

We feel that he has served the S. Tex. area well and regret that he has found it necessary to make this decision. **HE WILL BE MISSED!**

The SCM, elected under League rules, is the Section's operating-administrative leader. He is responsible for building and maintaining the Section field esprit de corps. His efforts are directed to practical communications objectives, such as creation and maintenance of Section network activities in all bands and modes practicable. In addition to traffic advancement, attention is given emergency preparedness (AREC) and readiness for communication service in the public interest. Lee has exhibited these qualities and proved himself during his tenure of office. Because of his diligence as SCM, it will make the task of finding a successor more difficult.

Emma and Lee have bought some acreage near Marion, Texas and are in the process of building a new home. He also plans to do some farming and take life generally easy--a well deserved rest!

An election for SCM of S. Tex. will be held. Nominating petitions are solicited. The signatures of five or more ARRL full members of this section are required on each petition. No member shall sign more than one petition.

Each candidate for SCM must have been the holder of Amateur Conditional Class License or higher and an ARRL full member for at least two years immediately prior to receipt of petition at Headquarters. Petitions must be received on or before 4:30 p.m. Eastern local time on the closing date, which is 9 Oct. 72. The complete name, address and zip code of the candidate and signers should be included with the petition. It is advisable that a few extra full member signatures be obtained to insure it will be valid.

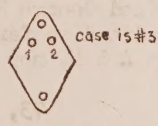
For further information see Page 104, Aug. QST. For details on the job description of a Section Communications Manager see Page 7 of the ARRL Publication "Operating an Amateur Radio Station".

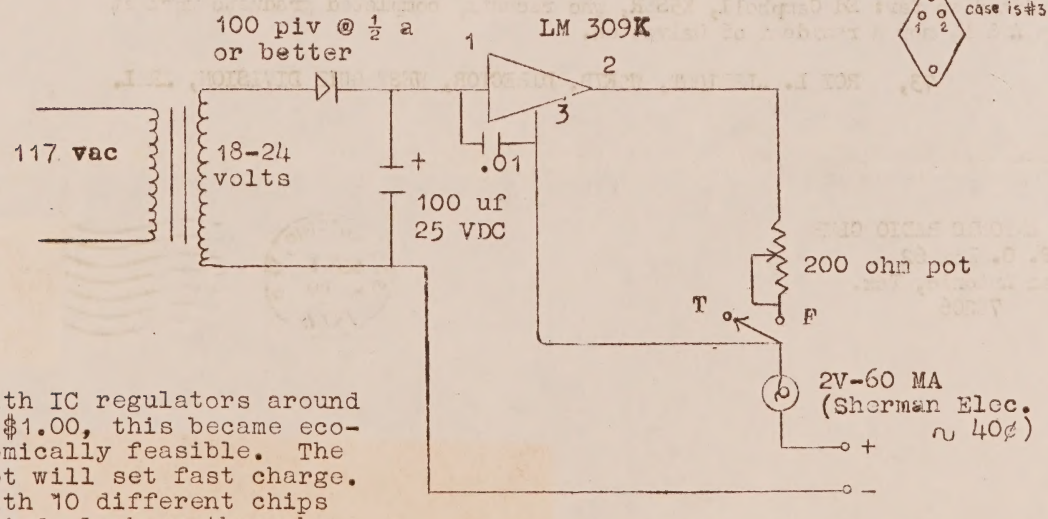
All ARRL members in S. Tex. area should give serious thought on nominating a new SCM and get your petition (properly done per Aug. QST - Page 104) in O N T I M E !!! de W5BGE Dean.

-..- -..-

VERY CONSTANT CURRENT NICAD CHARGER

de WA5WON.





With IC regulators around a $1.00, this became economically feasible. The pot will set fast charge. With 10 different chips tried, leakage through chips was 4-6 ma, which is good enough for trickle. The 309K is good for 1 amp. I have not tried LM 309 in this circuit. Works beautifully with standard for a drop in. Put .01 or might oscillate. 73 Bob WA5WON.

ARRL ARRL ARRL NEWS FROM THE DIRECTOR ARRL ARRL

The new 1972 ARRL Repeater Directory lists almost 1000 repeaters. Copies are available by sending a self addressed envelope with 24 cents postage affixed to the League. Also, for traffic handlers, the Net Directory is a valuable adjunct to station operation. Send a SASE with 16¢ postage affixed for it. Address: ARRL, 225 Main St., Newington, Conn. 06111.

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Non- ARRL members are urged to join the League, through the local radio club. The club keeps 50¢ of each annual membership for the club treasury. ARRL dues are $7.50 per year.

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General Manager Huntoon informs me the new repeater regulations have gone to press and will be distributed in a few days. The advance FCC notice strongly infers that 'finger-on-the-button' monitoring will be required! This certainly was one thing almost unanimously opposed by repeater users. It looks like we may have to man the barricades and request reconsideration, but lets wait until we read the official wording in the regulations before determining the appropriate action. Details of the new regs will appear in October, QST.

No word yet on the proposed fone band expansion or the Eyebank affair. Perhaps rulings on these will be forthcoming soon, now that repeater regulations are coming off the press.

* * * * * * *

The "Macromatcher" Impedance Bridge described in January, 1972 QST by Jerry Hall was recently constructed here. I find reading accuracy better than 6% is attainable! This bridge is absolutely fantastic for adjusting antennas.

* * * * * * *

ARRL President Harry Dannals, W2TUK, will be a featured speaker at Lake Texoma Hamarama next month. Write Vice Director Jack Gant, W5GM, 521 Monroe, NW, Ardmore Oklahoma, 73401 for details on the Hamfest.

* * * * * * *

Doug Blakeslee, W1KIK, of the ARRL Technical Staff has resigned to occupy a position as Vice President of National Telephone Co., East Hartford, Conn. While we are pleased to see Doug get the high honor we are indeed disturbed over losing him as a member of the QST staff. Doug's work in QST in recent years in bringing us to the state of the art has been so outstanding his departure will leave a void very difficult to fill.

* * * * * * *

Amateurs who have a rig in the car and desire call letter license plates in 1973 are reminded they must apply before 1 October '72. Renewal notification has been mailed to those who currently have call letter plates.

* * * * * * *

Mr. Gerald Howard, W5KM, long-time League member Engineer-in-Charge of the Dallas FCC office has retired. Mr. Howard's kind consideration for the numerous nervous individuals applying for an amateur license will long be remembered. We wish him a happy life in his years of rest and relaxation.

* * * * * * *

There are two nominees in North Texas Section for the position of Section Communications Manager; the incumbent, Gene Harrison, W5IR, and Charles Roberts, WA5SUY.

In South Texas, SCM Lee Ulrey finds it impracticable to remain in office and has notified George Hart he will not be a candidate for re-election. One nomination accredited so far: Ed Campbell, K5SBR, who recently completed graduate work at Texas A & M, now a resident of Galveston.

73, ROY L. ALBRIGHT, W5EYB, DIRECTOR, WEST GULF DIVISION, ARRL.

SAN ANTONIO RADIO CLUB
P. O. Box 62
San Antonio, Tex.
78206

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